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Exploring the Sources of Financial Literacy

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Abstract

Studies have shown that levels of financial literacy, across most demographics, tend to be below expectations. However, some demographics have been found to be more financially literate than others. Previous studies, like that of Annamaria Lusardi and Olivia Mitchell, have pointed out these inequalities between demographics when comparing one group's level of financial literacy to another group's level of financial literacy. One of the more prominent gaps that has been found supports the idea that individuals with more formal education tend to be more financially literate than those with less formal education. The analysis in this study explores this concept of financial literacy inequalities across education levels with a focus on high school graduates, undergraduate students, and post-undergraduate students and professionals, with the aim of discovering the most efficient ways to decrease the gap in financial literacy education.

Measuring Financial Literacy

This study distributed two separate surveys to gauge financial literacy levels and collect other demographic information from the public. Previous studies have used the questions from Annamaria Lusardi's 2006 study of financial literacy as a measurement standard of financial literacy. For consistency of comparison, this study uses the same questions to gauge financial literacy:

***(1) Suppose you had $100 in a savings account and the interest rate was 2% per year. After 5 years, how much do you think you would have in the account if you left the money to grow ?*

More than $102
Exactly $102
Less than $102
Do not know
Refuse to answer

***(2)Imagine that the interest rate on your savings account was 1% per year and inflation was 2% per year. After 1 year, how much would you be able to buy with the money in this account ?*

More than today
Exactly the same
Less than today
Do not know
Refuse to answer

***(3) Please tell me whether this statement is true or false. 'Buying a single company's stock usually provides a safer return than a stock mutual fund'.*

True
False
Do not know
Refuse to answer

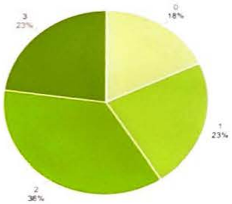
Methodology – College Students

College Student Financial Literacy Survey

The first survey was focused exclusively on current college students. Previous studies have shown that individuals with a college education tend to be more financially literate than others, and this survey was geared towards finding out why.

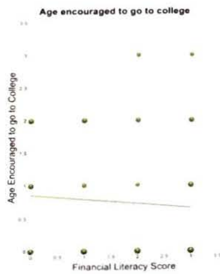
In addition to collecting data on financial literacy this study also asked participants for information on their parents' annual income, their annual income, finance and economics classes they had taken in college, the age they were first encouraged to attend college, age, gender, ethnicity, and how often they engage in conversations about financial literacy.

This study found that, in most cases, college student financial literacy was higher than the data gathered by Dr. Lusardi and others in previous studies of a more broad population. To make further inferences based on an individuals level of financial literacy, this study created a variable called Financial Literacy Level that increased by one point for each correct answer to the financial literacy questions. This results in a number between zero and three and facilitates making further inferences about a students level of financial literacy.



Question		Code
When was the first time you were encouraged to attend college?	Less than 10	0
	Age 10-13	1
	Age 14-18	2
	After age 18	3

Question		Code
Scoring for Financial Literacy Questions	No FL Questions Correct	0
	1 FL Question Correct	1
	2 FL Questions Correct	2
	3 FL Questions Correct	3



Other questions were formatted in a similar fashion to allow for statistical analysis.

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Results – College Students

The goal of the study was to find why individuals with a college education were more financially literate than those with less formal education. In this study, using bivariate correlation analysis, I found a correlation between the age that students were first encouraged to attend college and their level of financial literacy. This can possibly be explained by an education theory called The Cone of Learning (COHEAO, 2014) as adapted from Edgar Dale's "The Cone of Experience" (1969) which suggests that the longer a student spends with a subject the greater an understanding they will have of that subject.

Moving forward I hypothesized that this correlation was a result of students being exposed to the idea of college at an early age. With the idea of college comes the cost of college and the understanding that financing college can be both difficult and confusing. Consistent with the Cone of Learning Concept, (COHEAO, 2014) the earlier a student is encouraged to attend college the longer they have to explore those ideas and ultimately become more financially literate.

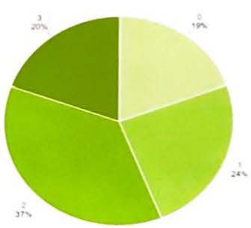
Methodology – HS to Professionals

High school through Graduate Professionals Financial Literacy Survey

The results from the first survey led into the second survey which, was distributed to everyone from high school students to graduate professionals, and had two goals:

1. Can we recreate the data significance of when someone was encouraged to go to college across a larger age demographic?
2. Can we recreate the data from other surveys on the value of formal education?

In the first survey, level of education was held constant among participants who had a partial college education. The second survey was designed to see if the correlations we had previously found were sustained without holding level of college education constant. Data was also processed in the same way as the first survey with surprisingly similar results.



This second survey asked general demographic questions like age, gender, and ethnicity, and in addition to the Financial Literacy questions, also asked about the participants income, how often they engage in financial conversation, If they've taken a formal finance, personal finance, or economics course, and if they had taken a formal class whether they took that in college or high school.

Results – HS to Professionals

The second study was not able to replicate the first study's significance in the age at which a person was first encouraged to attend college and the number of financial literacy questions correctly answered. I tried this both including and excluding participants who were encouraged to go to college and did not attend. Neither could replicate the results.

The second study did find significant bivariate correlations at the 1% level in the following areas:

-People who had taken out a loan previously in their lives tended to be more financially literate though doing significant research before taking out that loan was not significant
-How often a person has conversations about finance was significantly correlated with their financial literacy score
-Whether a person had taken a formal personal finance, finance, or economics course was correlated with higher financial literacy scores, though whether that class was taken in high school or college was not significant

Conclusion

One of the biggest struggles with this study has been the sample size. Both studies included a sample population between 80 and 90 participants. I believe this factors heavily into the inconsistencies between the two surveys and I would like to be able to find a larger and more consistent sample size. Additionally, I cannot guarantee a random sample by distributing the surveys via word of mouth which could also attribute to inconsistencies.

Financial Literacy is a significant factor in an individual's ability to experience peace and success in life. I think it is important to see more consistent data on this topic, but as it stands I believe that in order to bolster financial literacy in our society we should be acknowledging at an earlier age the costs of living in our society. Expenses like college, mortgages, and car loans introduce to the next generation these basic concepts of financial literacy that foster financial success later in life. And the earlier we introduce the concepts, coupled with formal education in high school and college, the better off our society will be.

** These questions were used for a baseline comparison between studies from the study completed by Annamaria Lusardi and Olivia Mitchell in 2006.

Lusardi, A., & Mitchell, O. S. (2006). *Financial Literacy and Planning: Implications for Retirement Wellbeing*[Scholarly project]. Retrieved December 7, 2017, from

Anderson, Heidi. *Dale's Cone of Experience*.

COHEAO'S Financial Literacy Task Force, et al. *Financial Literacy in Higher Education: The Most Successful Models and Methods for Gaining Traction*. COHEAO Financial Literacy Task Force, Mar 2014.

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